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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,653	01/09/2002	James F. Robertson	015490-000000US	6028

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EXAMINER	
SOOHOO, TONY GLEN	

ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

mk

Office Action Summary	Application No.	Applicant(s)	
	10/043,653	ROBERTSON, JAMES F.	
	Examiner	Art Unit	
	Tony G Soohoo	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,9 and 12-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9 and 12-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 9, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore 3433421 in view of Miller 4497581.

Moore discloses a belt drive, an eccentric drive cam, a container holder, a drive shaft coupled to the drive cam and container holder and the corresponding manner of operation and agitating a material in the container.

Moore discloses all of the recited subject matter as defined within the scope of the claims with the exception of a drive motor connected to the drive pulley and drive belt the manner in which the belt is driven is not shown.

The reference to Miller teaches that a driven shaking device may be provided with a motor and motor shaft 46a and motor shaft pulley 48 a connecting belt 50 in connection to a rotating shaft pulley 52 to provide an appropriate drive forces from the motor shaft to the rotation shaft 42, see figure 5, via the eccentric thereby providing a rotation and reciprocational component to the mixing vessel, see mark up of MOORE.

In view of the teaching of Miller that a motor with motor shaft, and motor pulley may be provided to drive a belt to rotate a rotating shaft and pulley, it is deemed that it would have been obvious to one of ordinary skill in the art to provide with the device of

Moore with a motor device and corresponding pulley to move the drive shaft in an appropriate rotational and vibratory speed. With regards to the inhibition of the formation of bubbles during agitation, this limitation is directed to functional effects in the operation of the device. Functional limitations to the intended use of an apparatus claim is denied any patentable distinction. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

With regard to the method claims, Moore discloses all of the recited subject matter as defined within the scope of the claims with the exception of using the device to agitate a fluid and the force being limited to inhibit the formation of bubbles and inducing the 2nd rotational force to produce a vortex agitation.

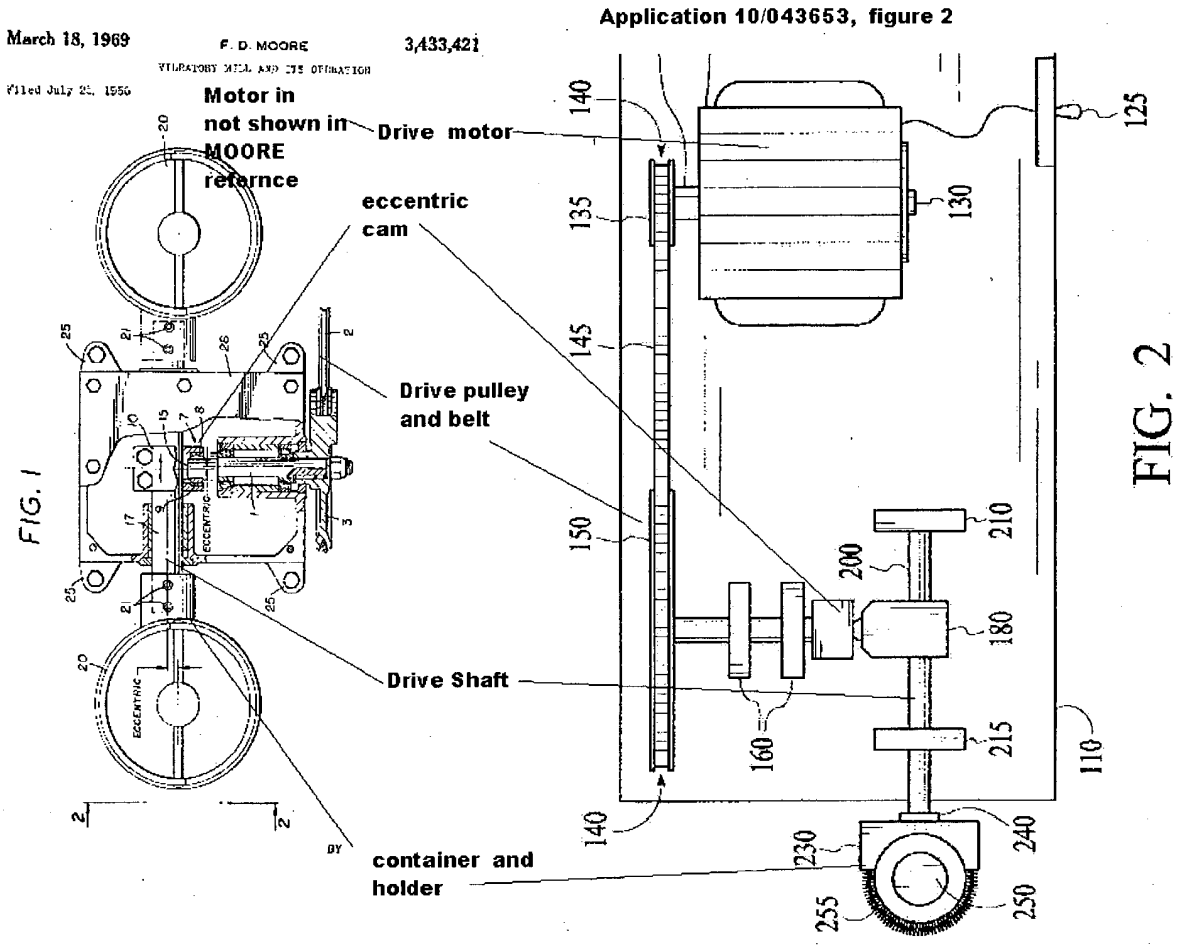
It is known in the art to use shaking devices to agitate fluids, such as shown by the Miller reference, in view of the teaching that a vibrating device may be used to vibrate a fluid, it is deemed that it would have been obvious to one of ordinary skill in the art to substitute the material of Moore with the use of a fluid within Moore's device so as to provide better agitating and vibrate the fluid for mixing.

With regards to the rotation, it is noted that all of the structural elements of the Moore Patent has been found as a finding of fact to a corresponding structure of the applicant's disclosed apparatus (see MARK UP OF MOORE PATENT), accordingly, it is deemed that the operation of Moore's device would produce the recited rotation and

reciprocational component force and also inherently produce the recited vortex in the method step.

With regards to the driving force range and agitation force being produced (2nd driving force) that is so low that bubbles are not produced during agitation, the operation of Moore produces and provides both forces for agitation, but however, does not point out the amount (i.e. in units of Newton, ft-lbs) that is desired. It is old and well known that the amount of work force provide upon the agitation of a material is a direct variable in the intensity of agitation. Also it is widely known by a a person having ordinary skill in the art , that the each material and process is mindful of the intensity of agitation upon the material. Agitation intensity is important whereby some materials may exhibit undesirable characteristics if it is agitated too intensely, such as breaking down or foaming (one common example is the intensity of beating egg whites for a particular recipe outcome to the desired amount of air to be introduced in the egg white). Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the force to a lower value so that the material is not agitated to harshly for the desired agitation amount.

MARK UP OF MOORE PATENT (fig 1) and Application drawing (fig 2)



Response to Arguments

3. Applicant's arguments filed 11/21/2003 have been fully considered but they are not persuasive.

4. Applicant argues that applicant's invention is directed the agitation of fluid while being as such a low intensity that it does not form bubbles. In response, with regards to the apparatus claims, such issues of intended use fails to patentably distinguish that of

the structure being claimed by applicant. The combined teachings of Moore in view of Miller has presented above, is a showing of each and every element of the claimed structure.

5. With regards to the method claims, applicant also argues that the combined teachings of Moore in view of Miller does not present an invention which is directed the agitation of fluid while being as such a low intensity that it does not form bubbles. Applicant believes that a novel and new finding that if one were to shake a fluid in a vortex manner firmly, bubbles would not form.

6. Applicant argues that Moore is a vibratory mill to grind and crush solid matter and does not agitate liquid or consider undesirable-ness of bubbles. Applicant argues that Miller is a rapid mix paint mixer and is not teach applying less intense agitation so that no bubbles are produced. The issue of the obviousness of the use of fluid in a vibratory manner to produce agitation has been identified by the examiner and addressed in the rejection above and in the previous office action. The consideration of the undesirable-ness of bubbles and correlation of the limiting of the choice of mixing intensity to prevent bubbles has been addressed above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

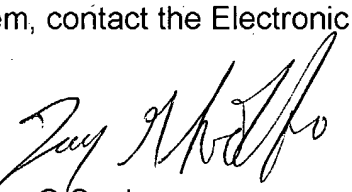
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7:00 AM - 5:00 PM, Tues. - Fri..

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony G Soohoo
Primary Examiner
Art Unit 1723